

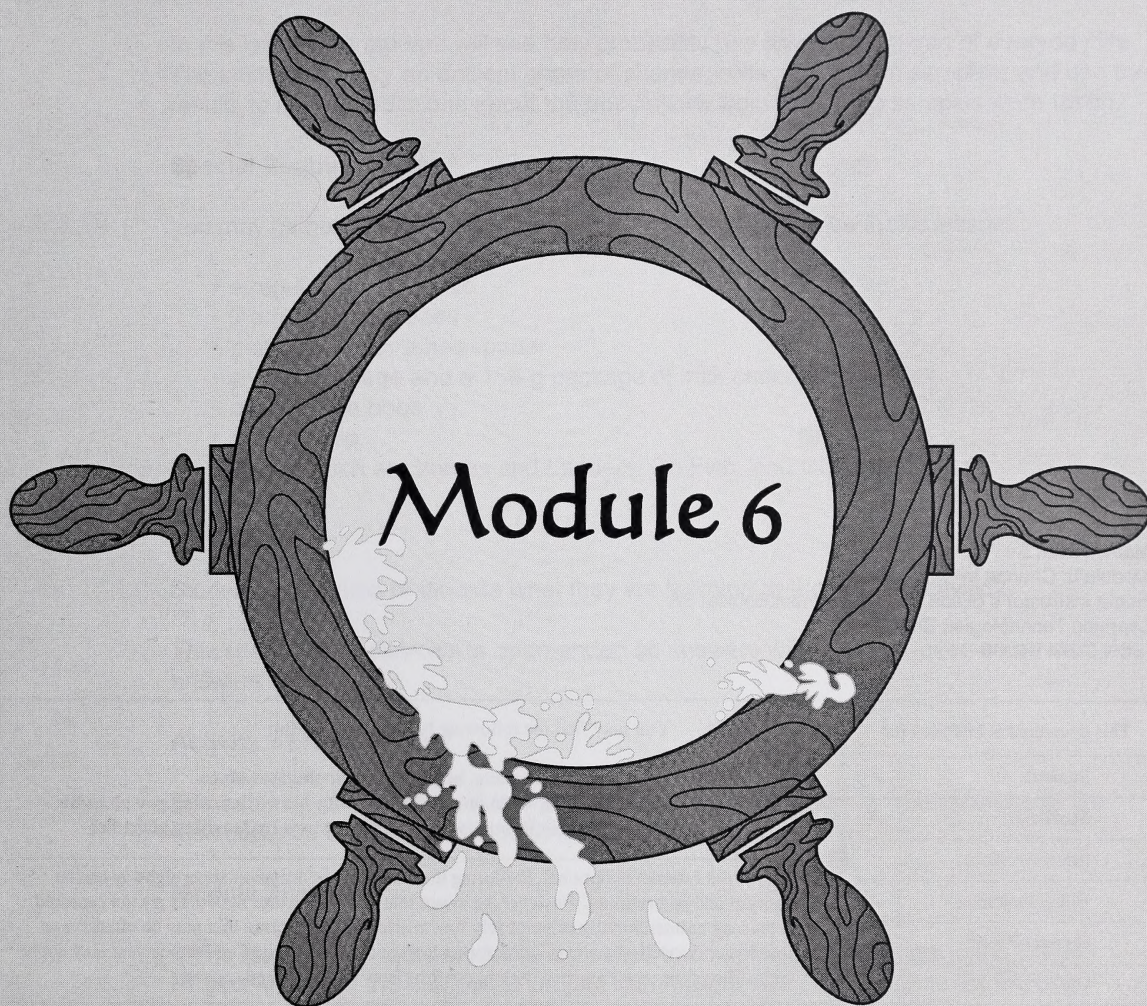
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Mathematics 5



Home Instructor's Guide and Assignment Booklet 6B

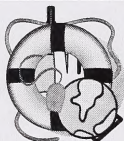


Learning
Technologies
Branch

Alberta
LEARNING

Mathematics 5
 Module 6: Chance and Uncertainty
 Home Instructor's Guide and Assignment Booklet 6B
 Learning Technologies Branch
 ISBN 0-7741-2056-8

| | |
|-------------------------------|---|
| This document is intended for | |
| Students | ✓ |
| Teachers | ✓ |
| Administrators | |
| Home Instructors | ✓ |
| General Public | |
| Other | |



You may find the following Internet sites useful:

- Alberta Learning, <http://www.learning.gov.ab.ca>
- Learning Technologies Branch, <http://www.learning.gov.ab.ca/lrb>
- Learning Resources Centre, <http://www.lrc.learning.gov.ab.ca>

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Lesson 3: Chance—Past and Present

Overview

In this lesson the student will see how probability has always been part of everyday life. The student will play an ancient game of chance, collect data from samples, and use the results to make predictions about the populations from which the samples were taken.

Special Requirements

You may gather the following materials for your student to use in this lesson:

- a regular six-sided die
- 2 small game pieces
- a story book or a newspaper
- a 48-g package and a 159-g package of milk chocolate M&M's®
- a telephone book
- a paper clip
- games such as Snakes and Ladders, Go Fish, and Checkers

Sharing Time

Students are asked to discuss what they are learning at the end of Activity 2.

This sharing time exercise is open-ended so answers will vary. However, some sample answers are given.

Activity 2 Sharing Time

The outcome of Snakes and Ladders depends on chance alone. The outcome of Go Fish depends on chance and skill. Checkers is a game of skill.

Module Summary

In the Module Summary students are asked to complete the Numbers in the News Project and send the completed project with Assignment Booklet 6B to the teacher.

Following the Module Summary are Keystrokes and Review. These special activities can be assigned at a later time to review the module ideas and prepare for the final test.



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ASSIGNMENT BOOKLET 6B

Mathematics 5

Module 6: Lesson 3 Assignment and Numbers in the News

Home Instructor's and Student's Comments:

STUDENT FILE NUMBER
(if label is missing or incorrect)

Date Submitted:

Apply Module Label Here

Name

Address

Postal Code

*Please verify that preprinted label is for
correct course and module.*

FOR SCHOOL USE ONLY

Assigned Teacher:

Date Assignment Received:

Grading:

Teacher's Comments

Teacher's Signature

Home Instructor: Keep this sheet when it is returned to you as a record of the student's progress.

INSTRUCTIONS FOR SENDING IN THIS DISTANCE LEARNING ASSIGNMENT BOOKLET

When you register for distance learning courses, you are expected to send in Assignment Booklets for corrections regularly. Try to send each Assignment Booklet as soon as you have completed it. Before sending your Assignment Booklet, please check the following:

- Are all the assignments completed? If not, explain why.
- Has your work been reread to be sure the spelling and details are correct?
- Is the record form filled out and the correct module label attached?

MAILING

1. Postage Regulations

Do **not** enclose letters with Assignment Booklets.

Send all letters in a separate envelope.

2. Postage Rates

Take your Assignment Booklet to the post office and have it weighed. Attach enough postage and seal the envelope. Assignment Booklets will travel faster if correct postage is used and if they are in large envelopes that are no more than two centimetres thick.

FAXING

1. Assignment Booklets may be faxed. Contact your teacher for the fax number.
2. All faxing costs are the responsibility of the sender.

E-MAILING

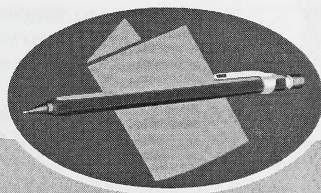
Assignment Booklets may be e-mailed. Contact your teacher for the e-mail address.

Mathematics 5

Module 6

Chance and Uncertainty

ASSIGNMENT BOOKLET 6B



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FOR TEACHER'S USE ONLY

Summary

| | Total Possible Marks | Your Mark |
|---------------------|----------------------|-----------|
| Lesson 3 Assignment | 30 | |
| Numbers in the News | 10 | |
| | 40 | |

Teacher's Comments

Mathematics 5

Module 6: Chance and Uncertainty

Assignment Booklet 6B

Lesson 3 Assignment and Numbers in the News

Learning Technologies Branch

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ASSIGNMENT BOOKLET 6B

MATHEMATICS 5—MODULE 6: CHANCE AND UNCERTAINTY

Your mark on this module will be determined by how well you do your assignments in the Assignment Booklets.

Work slowly and carefully. If you are having difficulties, go back and review the appropriate lessons.

There is one lesson assignment and a Numbers in the News project in this Assignment Booklet. The total of the lesson assignment is 30 marks. The Numbers in the News project is worth 10 marks. The value of each assignment is stated in the left margin.

Be sure to proofread each assignment carefully.

30

Lesson 3 Assignment: Chance—Past and Present

1. Heidi said that in any particular area of Alberta, the first three digits in telephone numbers repeat often because they represent the exchanges used in that area. She predicted that the numbers used for the last four digits would likely all have about the same frequency.

2

- a. Do you agree with Heidi? Explain.

2

- b. Open a phone book to any page without looking. Do you think this is a good sample to test your prediction? Explain.

- ④ c. Tally each of the last four digits of all the phone numbers on the page.

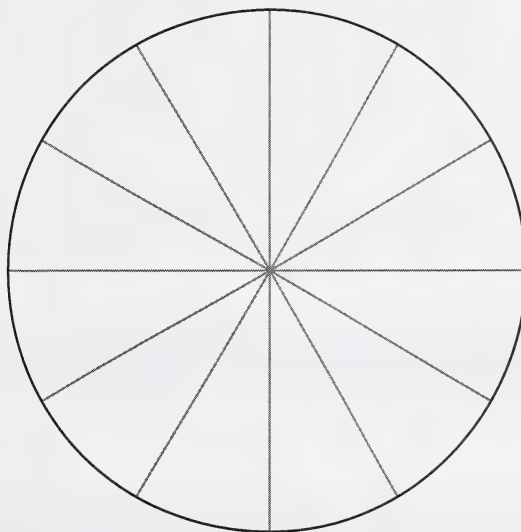
| Digit | Tallies | Frequency |
|-------|---------|-----------|
| 0 | | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| Total | | |

- ② d. Compare your results with your prediction. Explain.

2. Five-twelfths of the pizzas sold at Paolo's Parlour are vegetarian (have no meat), one-third have pepperoni, and one-fourth have meat other than pepperoni.

- ③ a. For each dozen pizzas ordered, how many of each type would they expect to sell? Explain.

- ③ b. Complete the spinner below by labeling the correct number of parts for each of the three types of pizza described above.



- ② c. Predict how many of the next 24 pizzas ordered will be out of each type. Explain.

- ④ d. Use a paper clip as a pointer and make 24 spins (each spin stands for a pizza sold). Record your data in the table below.

| Type of Pizza | Tallies | Frequency |
|---------------|---------|-----------|
| Pepperoni | | |
| Other Meat | | |
| Vegetarian | | |
| Total | | |

②

e. Compare your prediction in question 2.c. with your results.

3. Jason wondered how many of each letter there was in the brand of alphabet soup he was about to eat. He counted the letters in each spoonful before he ate it. His results are shown below.

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| | | | | | | |

| H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|
| | | | | | | |

| O | P | Q | R | S | T | U |
|---|---|---|---|---|---|---|
| | | | | | | |

| V | W | X | Y | Z |
|---|---|---|---|---|
| | | | | |

Explain why you agree or disagree with each of Jason's conclusions.

②

- a. The company likely makes about twice as many consonants as vowels for the soup.

- ② b. The company doesn't make the letter J for the soup.
-
-
-
-
- ② c. I am certain that the company makes more of the letter E for the soup than any other letter.
-
-
-
-

10

Numbers in the News

Go through the scavenger hunt list for Module 6 to make sure you have clipped at least one sample for each question. Ask your home instructor to check the sample you wish to use, and label each one with the scavenger hunt number it matches. Organize your samples and put them together with any other information required. Submit your project with this Assignment Booklet.

Ask yourself the following questions:

- Is my Numbers in the News project complete? (Have I included all my samples?)
- Do my samples show the ideas clearly? (Are my examples appropriate?)
- Did I take care to be neat when organizing and labelling my work?

